

## Claims

A garage door that can have enhanced preventive safety measures and equipment to accommodate precise and timely maintenance is composed of a garage door, a control mechanism on top, a moving mechanism between the  
5 door and the control mechanism and a door track; the moving mechanism further comprises a rail, a hinge arm, a roller etc. with features as follows:  
adding into the garage door control mechanism a transceiver that uses electromagnetic waves in the form of laser, infrared, or supersonic wave as distance-measuring and transmission medium, which is directly reflected to the  
10 transceiver through a moving roller; in this way, the distance between the moving roller and the garage door can be measured; the roller speed can be pre-determined, so it equals to the garage door speed; besides, the preset roller speed can be compared to the actual roller speed; this comparison ratio is used as a precise reference to determine whether the closing garage door hits an  
15 obstacle or plan on preventive safety maintenance; thus, accidents can be prevented when the garage door is closing; the problems due to improper maintenance are also avoided; and the invention provides enhanced preventive safety measures and equipment to accommodate precise and timely maintenance.